For 2009, our top goal should be energy independence. I support exploring for energy off our coasts, expanding nuclear power and building a natural gas pipeline across Canada to lower heating costs in the Midwest – an "all-of-the-above" energy strategy.

As a Navy veteran, I think it is time to set America's policy towards defunding Middle Eastern dictatorships by cutting our foreign oil bill, giving our troops less to worry about. That is why during the debate on the American Clean Energy and Security (ACES) bill, I voted for the Republican Forbes (R-VA) Substitute, based on the text of the New Manhattan Project for Energy Independence, H.R. 513. Our "Manhattan" energy bill set a goal of reducing our dependence on foreign oil by 50% in 10 years and 100% in 20 years. The bill cost \$24 billion but would eliminate the \$400 billion Americans currently spend on foreign oil. Our bill backs solar, wind, hydro, clean coal and nuclear power. It enhances research, especially in nuclear fusion, bio-fuels, carbon-capture systems and efficiency upgrades. Unfortunately, this bill was defeated by a vote of 172 to 255.

While less ideal than the Forbes Substitute, the underlying ACES bill would still lower our dependence on foreign oil by diversifying American energy production. It is time to break the boom and bust cycle of high gas prices and the need to deploy three separate armies to the Middle East (Desert Storm, Iraqi Freedom and Enduring Freedom). As you may know, I am a veteran of the Desert Storm and Enduring Freedom missions.

With regard to the main thrust of the ACES bill, I am also concerned about growing air pollution, both from our country and overseas. I do not think we should ignore this problem. While the ACES bill is overly complicated, I voted in favor of the legislation to address these problems, looking forward to major improvements in the Senate.

In 1998 and 1999, I served as part of the U.S. delegation to both the Kyoto and Buenos Aires UN Climate Change conferences. In those years, there was a significant debate about the amount and effect of atmospheric carbon dioxide. I was a skeptic and spent hundreds of hours on the subject of 1990s climate science. In the Congress, our job is to learn as much as possible from the latest peer-reviewed non-partisan scientists and then plot the best course for our nation.

There is now a growing scientific consensus that the level of atmospheric carbon dioxide affects average temperatures. According to the National Academy of Scientists, carbon dioxide levels rose to a high of 290 parts per million 130,000 years ago, causing a 20 degree increase in temperature. As carbon dioxide levels fell, so did average temperatures. Both Presidents Bush and their advisors recognized this long relationship and put forward their own plans to reduce the recent rapid growth of atmospheric carbon dioxide, both here and abroad.

According to NASA, the amount of carbon dioxide in the atmosphere rose from a pre-industrial level of 280 parts per million in 1850 to 385 parts per million today. According to the National

Oceanic and Atmospheric Administration (NOAA), the rate of increase is accelerating, from 376 parts per million in 2004 to 385 today. The National Academy of Sciences reports that the earth's average temperature already increased by 1.4°F, from 56.8°F in 1920 to 58.2°F in 2007. NOAA also reports that due to a 30% drop in winter ice covering the Great Lakes since 1972, evaporation may be the cause of Lake Michigan's declining water level.

If we examine the lowest-case NASA projection, they expect the amount of atmospheric carbon dioxide to rise to 440 parts per million by 2020. I am a strong supporter of the non-partisan Congressional Budget Office. When they reported the Democratic health care bill cost \$1.6 Trillion, we should take notice and rewrite that bill. That is why I have become one of the leading Republican authors of an alternative health care bill that will be the Congress's least expensive bill, costing our Treasury very little. I read their report on ACES carefully too. CBO reports that peer-reviewed scientists expect the world's average temperature to increase by 9 degrees by 2100, lowering U.S. economic output by 3% annually. In sum, they estimated the costs of the bill per household at \$140 annually

The main section of the ACES bill affects entities that emit more than 25,000 tons of carbon annually, roughly 7,400 sites across the U.S. (e.g. the current Clean Air Act already covers 22,000 sites). The best way to understand this bill is to look at its effect on our district's main source of electricity, the Midwest Generation electrical plant in Waukegan If you go to any beach in our district, you will see it on the northern Lake Michigan shoreline. In sum, Midwest Generation burns coal to produce four million megawatt hours of electricity, serving 330,000 households annually in northern Illinois. Under ACES, the Environmental Protection Agency (EPA) would issue permits for the four million tons of carbon this plant plans to emit in 2012. Half of the permits would be issued for free, half at a cost of \$15 per ton, totaling \$33 million in new costs (electricity generators using solar, wind, hydro and nuclear technologies do not emit carbon and would not pay such costs).

Midwest sells its electricity to Commonwealth Edison. Under ACES, EPA would refund to ComEd \$30 million of the \$33 million Midwest paid to EPA. The Act requires that this funding be used to reduce the cost of electricity to lower and middle income families. In the end, Commonwealth Edison would pass about \$3 million in new costs on to northern Illinois consumers, or roughly \$14 annually per home. As you can see, the costs of this bill are modest, mainly intended to move energy production in the United States to renewable technology. Midwest Generation also advised me they strongly supported the bill, as did Commonwealth Edison.

Major emitters can also invest in plants and trees that remove carbon from the atmosphere. By

planting nine acres of trees, an emitter can offset a ton of carbon emissions annually. Many of these investments will help farmers and may be arranged by the Chicago Climate Exchange, using our city's expertise in trading credits for agricultural products. Under this legislation, we also expect total wind power generation to expand at an annual rate of 16%, doubling wind production from its current 3% of U.S. totals power to 6% over the next 10 years. Because the U.S. solar and wind production is still so small, the legislation also contains provisions to encourage the construction of new nuclear plants to power our economic growth. Recently, our country started building new nuclear power plants, with 17 applications for 26 new plants.

ACES also increases energy efficiency standards for homes and commercial buildings – but recently passed Illinois standards are already as stringent as the new federal standards. The effect of this bill will be to increase other states to the Illinois standards. By one estimate, such efficiency standards will lower household energy costs by \$3,900 annually. This would cut our foreign oil bills substantially.

In sum, I would have preferred a bill that focused more on energy independence and less on some of the complications in this bill. Nevertheless, the 1990 Clean Air Act signed by President Bush established a cap and trade system to reduce acid rain that proved to be a great low-cost success. Much of the poisoned lakes in the east and New England have recovered from acid rain. In the coming Senate debate, I hope we can repeat this environmental success and aggressively back a national program to defund Iran and Venezuela by reducing America's need for foreign oil.